

Essential Assessment Skills for Nurses Plus Controversial Topics in Health Workbook

(3 Hours of CPD self-directed learning)

ACCESS AND VIEW THE FOLLOWING YOUTUBE VIDEOS:

1. [Study Confirms What Many Patients Taking Statins Have Said for Years | NBC Nightly News - YouTube](#)
2. [On a Statin? WATCH THIS... - YouTube](#)
3. [10 Bad Things STATIN Drugs do in Your Body \(Statin Side Effects\) - 2023 - YouTube](#)
4. [Abdominal Examination \(Exam\) Nursing Assessment | Bowel & Vascular Sounds, Palpation, Inspection - YouTube](#)
5. [Endocarditis Pathophysiology, signs and symptoms for nursing students NCLEX review - YouTube](#)

Statin Cholesterol Controversy

If you require further information on the Statin Cholesterol controversy view the following:

Note: This handout is not intended to give any medical advice or advise anyone to come off any medications but is a collection of references examining the controversy and discussions occurring relating to cholesterol and heart disease. To encourage people to make an educated decision, with discussion with their doctor. It is not intended to tell people to come off statins (cholesterol lowering drugs) but to encourage them to educate themselves with the data that is now currently available. The following is a collection of a few of the references and data used by the presenter. The summary is not complete, but a summary of comments from the articles with references.

If you don't want to read all the information in this document, then view the podcasts and access the DVDs called **Statin Nation** as below:

1. Dr. Maryanne Demasi – Stating Wars: Have we been misled of the evidence?

Demasi M. Statin wars: have we been misled about the evidence? A narrative review. Br J Sports Med. 2018 Jul;52(14):905-909. doi: 10.1136/bjsports-2017-098497. Epub 2018 Jan 21. Erratum in: Br J Sports Med. 2018 Oct;52(19):1282. PMID: 29353811.

Dr. Maryanne Demasi - 'Statin Wars: Have we been misled by the evidence?' - YouTube

2. Statins: Side Effects and Alternative Ways to Lower Cholesterol by Dr. Berg. - <https://www.youtube.com/watch?v=ynpqxnxtLi8>
3. **Statin Nation 11.** Many countries around the world consume large amounts of saturated fat and cholesterol yet also have an extremely low rate of heart disease. These, and many other contradictions to the current view of heart disease are investigated in STATIN NATION II. The film includes interviews with 12 leading experts in this field, and was shot on location in the UK, USA, Denmark, Sweden, France, Lithuania, Australia, Egypt and Japan.

Statin Nation – DVD Documentary - Comments taken from the video:

Over the past 60 years, research has repeatedly demonstrated that there's **NO** correlation between high cholesterol and plaque formation that leads to heart disease. Despite that, the saturated fat/cholesterol myth has been an extremely persistent one.

Statins are now among the most widely prescribed drugs on the market and are the number one profit-maker for the pharmaceutical industry. Meanwhile, there are numerous studies proving their adverse effects, from muscle problems to increased cancer risk!

Reference: <http://www.statinnation.net/>

FURTHER READING:

Summary of Result

It was found that high cholesterol (that is above 6.21 mmol/L) was not a risk factor in the study. The result goes against the current guidelines. Conclusions were: Low cholesterol was related to high mortality (death rate) High cholesterol was not a risk factor for mortality.

Reference: Nago, N., Ishikawa, S., Goto, T., & Kayaba, K. (2011). Low Cholesterol is Associated With Mortality From Stroke, Heart Disease, and Cancer: The Jichi Medical School Cohort Study. *Journal of Epidemiology*, 21(1), 67–74.

From Textbook: **Lipitor: Thief of Memory and Statin Drugs, Side Effects and the Misguided War on Cholesterol.**

Many studies have shown that people with so-called 'healthy' low cholesterol levels actually live shorter lives. Upon closer scrutiny, the very studies that have formed the cornerstone of the anti-cholesterol argument actually show that cholesterol and saturated fat are not harmful. Numerous populations consuming high saturated fat diets have been documented to enjoy very low rates of heart disease. Over fifty years' worth of clinical dietary intervention trials have completely failed to show any mortality benefit among those following saturated fat-restricted diets - in fact, several of these studies showed higher death rates among those assigned to diets low in saturated fats!

Reference:

Duane Graveline, M.D., MPH. NASA physician, author of *Lipitor: Thief of Memory and Statin Drugs, Side Effects and the Misguided War on Cholesterol*.

No link Between Dietary Saturated Fat and Heart Disease

Meta-analysis after meta-analysis has failed to show any link between dietary saturated fat and heart disease. And people who have heart attacks have repeatedly been shown to have normal or average cholesterol levels - not high cholesterol. Now, two more studies have recently been published to yet again destroy the diet-heart hypothesis and the basis for the use of statins - which are estimated to be taken by 100 million people around the world. The first study, published in the *British Medical Journal* examined the validity of the diet-heart hypothesis by recovering and analysing previously unpublished data from randomised control trials. The study found that replacing saturated fat for vegetable oils did lower cholesterol levels, but this did not reduce the amount of heart disease or heart attacks. In fact, for each 30 mg/dL (0.78 mmol/L) reduction in cholesterol there was a 22% greater risk of death. A meta-analysis that pooled data from 21 studies and included nearly 348,000 adults found no difference in the risks of heart disease and stroke between people with the lowest and highest intakes of saturated fat. Another 2010 study published in the *American Journal of Clinical Nutrition* found that a reduction in saturated fat intake must be evaluated in the context of replacement by other macronutrients, such as carbohydrates. Healthful saturated fats were also swapped for harmful trans fats, and ever increasing amounts of sugar. Sugar was later replaced by processed high fructose corn syrup. This offers more support for the concept that it is the processed sugar in the diet—not saturated fat—that causes heart disease. Because despite the low-fat craze, rates of heart disease have stayed on a steady incline. While saturated fat consumption was dramatically reduced in most people's diet, sugar was increased.

Every five years, the US Departments of Agriculture (USDA) and Health and Human Services (HHS) convene a 15-member panel to update the nation's dietary guidelines. These guidelines also serve as the foundation for national nutrition policies. In 2015 the advisory panel eliminated warnings about dietary cholesterol, which for decades has been wrongfully blamed for causing heart disease. The latest guidelines accurately state that there **is no such link between cholesterol and heart disease**. According to the report, "cholesterol is not a nutrient of concern for overconsumption."

As noted by Steven Nissen, chairman of the department of cardiovascular medicine at the Cleveland Clinic: *"Many of us for a long time have believed the dietary guidelines were pointing in the wrong direction. It is long overdue."* ***It's the right decision. We got the dietary guidelines wrong. They've been wrong for decades.*** "Dietary cholesterol may be far less detrimental to cardiovascular health than previously thought. *Despite this, research has never established any clear relationship between the consumption of dietary cholesterol and the risk for heart disease.*

Reference:

American Journal of Clinical Nutrition 2015 Dietary Guidelines. <https://health.gov/dietaryguidelines/2015/guidelines/>

Research: American Journal of Clinical Nutrition (Siri-Tarino et al. 2010)

350,000 people in a follow-up period of five to 23 years.

Findings from this research: **No relationship between saturated fat intake and heart disease.** Large Japanese study of about 58,000 people actually found an inverse association between saturated fat intake and strokes. **Adults** who were eating the most saturated fat actually had the lowest levels of stroke. Background: A reduction in dietary saturated fat has generally been thought to improve cardiovascular health. Results: During 5–23 y of follow-up of 347,747 subjects, 11,006 developed CHD or stroke. Intake of saturated fat was not associated with an increased risk of CHD, stroke, or CVD. In conclusion, meta-analysis showed that there is insufficient evidence from prospective epidemiologic studies to conclude that dietary saturated fat is associated with an increased risk of CHD, stroke, or CVD. (Siri-Tarino et al. 2010). The finding joins other conclusions of the past few years that run counter to the conventional advice that saturated fat is bad for the heart because it increases total cholesterol levels. Traditional advice not supported by data.

Reference:

Siri-Tarino PW et al (2010) American Journal of Clinical Nutrition Mar;91(3):535-46. doi: 10.3945/ajcn.2009.27725. Epub 2010 Jan 13

Guidelines are Emerging around the World (2022) to limit Statins to Older People Especially Females

Women and Statins

To date, no large trial of women statin users who already have cardiovascular disease has been shown to increase life expectancy by one day. More importantly, the use of statins in women at lower risk has not increased life expectancy nor prevented heart attacks and stroke. Statins fail to provide any overall health benefit in women. Association of diabetes with statin therapy has started a wave of discussion in the medical community. Individual statins differ with respect to their diabetogenic property; women and elderly persons appear to be at increased risk of diabetes

References:

Aiman, U., Najmi, A., & Khan, R. A. (2014). Statin induced diabetes and its clinical implications. Journal of pharmacology & pharmacotherapeutics, 5(3), 181–185. <https://doi.org/10.4103/0976-500X.136097>

The Great Cholesterol Con by Malcolm Kendrick, John Blake Publishing,

Jones, M, Tett, S et al (2017) New-Onset Diabetes After Statin Exposure in Elderly Women: The Australian Longitudinal Study on Women's Health. Drugs & Aging, 2017; 34 (3): 203 DOI: 10.1007/s40266-017-0435-0

Statins and the Older Patient – no clear evidence to support prescribing statins to older patients. Increased risk of harm with Statins.

Many older adults have high cholesterol. Statins are usually prescribed to prevent heart disease. But for older people, there is no clear evidence that high cholesterol leads to heart disease or death. In fact, some studies show the opposite—that older people with the lowest cholesterol levels actually have the highest risk of death. There is growing debate about whether doctors should prescribe statins to otherwise healthy older people to reduce their risk of developing their first heart attack or stroke. The study authors concluded that the benefits previously ascribed to statins may have been overstated for older people. Conclusions from another study: In participants older than 74 years without type 2 diabetes, statin treatment was not associated with a reduction in atherosclerotic CVD or in all cause mortality, even when the incidence of atherosclerotic CVD was statistically significantly higher than the risk thresholds proposed for statin use. In the presence of diabetes, statin use was statistically significantly associated with reductions in the incidence of atherosclerotic CVD and in all cause mortality

Reference:

Rafel, R., et al (2018) Statins for primary prevention of cardiovascular events and mortality in old and very old adults with and without type 2 diabetes: retrospective cohort study BMJ 2018; 362 : <https://theconversation.com/how-old-is-too-old-for-cholesterol-lowering-medications-78102>

Higher Incidence of Parkinson's Disease

In the study, researchers analysed data which included information on 30,343,035 persons aged 40 to 65 years. The use of cholesterol-lowering drugs was associated with a significantly **higher** prevalence of Parkinson's disease.

Reference:

Melville, NA. Statin Use Linked to Increased Parkinson's Risk. Medscape October 26, 2016

Summary of the Major Points and Recommendations contained in the book by Sinatra (cardiologist) & Bowden

Cholesterol levels have little effect on cardiovascular health, with the exception of the small LDL particles which become oxidised and enter the endothelium of cardiac and other vessels, increasing inflammation and plaque buildup. Cholesterol for all bodily functions, and reduction with statins may be a root cause of many modern disorders. Cholesterol plays an important role in the serotonin system, so statins used to lower cholesterol may lead to the occurrence of depression.

Sugar is the root cause of inflammation and should be avoided in any of its forms, as they generally contain fructose, the problem component

Reference:

Nutritionist Jonny Bowden, PhD, and cardiologist Stephen Sinatra, MD. "The Great Cholesterol Myth

Statins Linked to Anxiety and Depression

Scientists are reporting a possible explanation for the symptoms of anxiety and depression that occur in some patients taking the popular statin family of anti-cholesterol drugs, and reported by some individuals on low-cholesterol diets. These symptoms could result from long-term, low levels of cholesterol in the brain, the report suggests. The research appears in the American Chemical Society's weekly journal *Biochemistry*. The results represent the first report describing the effect of long-term cholesterol depletion on this type of cell receptor and suggest that chronic, low cholesterol levels in the brain might trigger anxiety and depression.

References:

Shrivastava, S. et al (2010) Chronic Cholesterol Depletion Using Statin Impairs the Function and Dynamics of Human Serotonin1AReceptors. *Biochemistry*; 49 (26): 5426 DOI:

You H1, Lu W, Zhao S, Hu Z, Zhang J (2013) . The relationship between statins and depression: a review of the literature..*Expert Opinion Pharmacotherapy*. 2013 Aug;14(11):1467-76. doi: 10.1517/14656566.2013.803067. Epub Jun 17

A review article called *Neuropsychiatric Adverse Events Associated with Statins: Epidemiology, Pathophysiology, Prevention and Management* discusses mental health and cholesterol control. Severe irritability, homicidal impulses, threats, road rage, depression and violence, paranoia, alienation, and antisocial behavior; cognitive and memory impairments; sleep disturbance; and sexual dysfunction have all been reported in case series of those taking statin medications.

Reference Kelly Brogan, M.D. is a Manhattan-based holistic women's health psychiatrist, author of the New York Times bestselling book, *A Mind of Your Own*, and co-editor of the landmark textbook, *Integrative Therapies for Depression*.

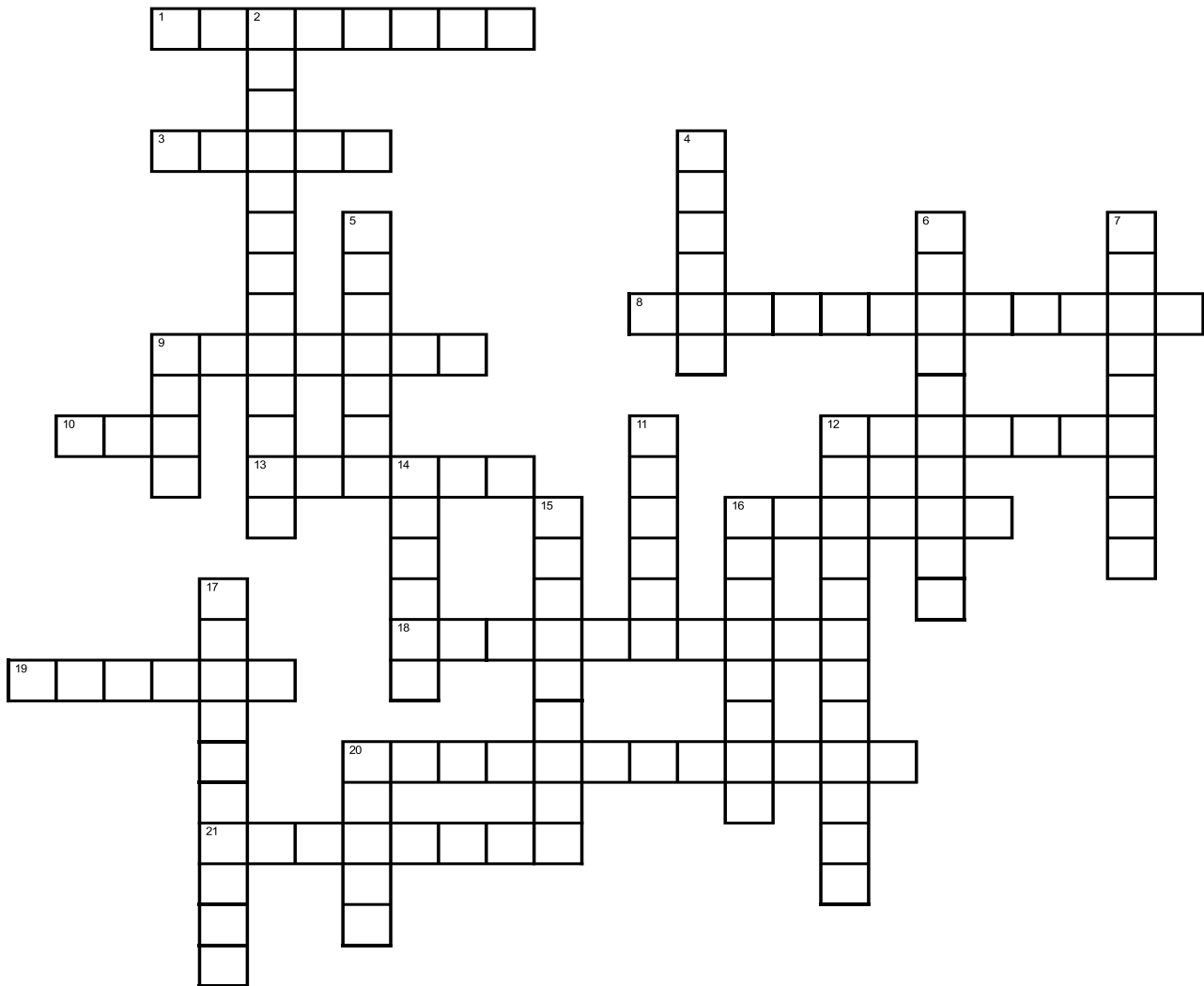
Comments from BMJ article challenging the hypothesis that high cholesterol is associated with heart disease.

A team of academics and cardiologists from Scandinavia, the United States, Italy, Japan and Great Britain analysed 19 studies involving a total of 68,094 elderly people. They found that in 92% of cases, older people who had high levels of this LDL cholesterol lived as long or longer, and were in fact less likely to die prematurely from other diseases, including cancer. Authors wrote: "Our review calls for a re-evaluation of the guidelines for cardiovascular prevention, in particular because the benefits from statin treatment have been exaggerated." It was found in the detailed systematic review was that older people with high LDL (low-density lipoprotein) levels, the so-called 'bad' cholesterol, lived longer and had less heart disease". To add to the confusion, another recent study claimed that decades of health advice urging people in England to adopt low-fat, low-cholesterol diets had been disastrous for the fight against obesity. Since elderly people with high LDL-C live as long or longer than those with low LDL-C, the analysis provides reason to question the validity of the cholesterol hypothesis. Lack of an association or an inverse association between low-density-lipoprotein cholesterol and mortality in the elderly: a systematic review. There is also research that statins reduce Co-enzyme Q10, an enzyme required by every mitochondria for energy transfer, causing muscle pain and damage may actually contribute to heart disease! The biggest side effects of statins are memory loss, muscle damage, diabetes, loss of energy and low immunity. Statins reduce hormone production, bile production and Vitamin D.

Reference:

Uffe Ravnskov, Diamond, D et al (2016) Lack of an association or an inverse association between low-density-lipoprotein cholesterol and mortality in the elderly: a systematic review. *British Medical Journal*. August 2016 - Volume 6 – 6.

Crossword 2



Across

- 1 Protein that neutralizes foreign objects (8)
- 3 Abbreviation for heart failure with reduced EF (5)
- 8 Inflammation of the inner layer of the heart (12)
- 9 An illicit drug causing MI (7)
- 10 Jugular venous pressure (Abbrev) (3)
- 12 Common food allergy, Allergic to: (7)
- 13 Sound from turbulence in flow of blood (6)
- 16 Valve between left ventricle and aorta (6)
- 18 Swollen tongue, face from allergy (10)
- 19 Australian and NZ guidelines for resuscitation (Abbrev) (6)
- 20 Electrolyte disturbance causing peaked T waves (12)
- 21 Shortness of Breath (8)

Down

- 2 Surgery which may cause low calcium levels (13)
- 4 E-cigarettes also called (6)
- 5 Wheezing in inspiration (7)
- 6 Drug used to treat anaphylaxis (10)
- 7 Valve between right atrium and ventricle (9)
- 9 Emphysema and chronic bronchitis called (Abbrev) (4)
- 11 Common respiratory sound in asthma (6)
- 12 Inflammation of the outer layer of the heart (12)
- 14 Valve between left atrium and ventricle (6)
- 15 Medical name for hives (9)
- 16 Substance that causes an allergic reaction (8)
- 17 Middle layer of the heart (10)
- 20 Abbreviation for heart failure with normal EF (5)

